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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,617	04/14/2005	Qiong Li	US020393	3919

24737 7590 04/02/2009
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
04/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,617	LI ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim recites a series of steps or acts to be performed, the claim neither transforms underlying subject matter nor is positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as a statutory process.

For example, claim 1, the method includes steps of "encoding a first bitstream", "encoding a second bitstream", "generating a first hint track", and "generating a plurality of enhancement layer hint tracks" is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine.

The Applicant has provided no explicit and deliberate definitions of "encoding a first bitstream", "encoding a second bitstream", "generating a first hint track", and "generating a plurality of enhancement layer hint tracks" to limit the steps to the electronic form of the method, and the claim language itself is sufficiently broad to read on a printout, mentally stepping through the §101 analysis.

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[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).
[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han (6,128,041) in view of Proehl (6,614,844).

Regarding claims 1 and 7, Han discloses a system and a method for streaming scalable coded video over a network, the method comprising:

encoding a first bit-stream representing a base layer of said scalable coded video (col.4, ln.41-42, fig.2, element 215 encodes the base layer);

encoding a second bit-stream representing an enhancement layer of said scalable coded video (col.4, ln.45, fig.2, element 230 encodes the enhancement layer);

transmitting the base layer (col.5, ln.16-20, fig.2, note element 250 sends the base layer data to the transmitter for transmission); and

generating a plurality of enhancement layers to facilitate the transmission of at least a portion of said second bit-stream over said network (col.4, ln.45, fig.2, note there are plural enhancement layers generated by elements 230 and 245).

Han does not disclose the generation of a first hint track to facilitate the transmission of said encoded first bit-stream over said network, or plural hint tracks. However, Proehl teaches the implementation of hint tracks for facilitating the transmission of bitstream data (col.2, ln.25-31, Proehl discloses the use of multiple hint

tracks). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Han and Proehl, as a whole, for facilitating the transport and quick viewing of MPEG-4 video image data (Proehl col.1, ln.33-36).

Regarding claims 2 and 8, Han discloses transmitting said encoded first bit-stream over said network in accordance with data elements (col.5, ln.16-20, fig.2, note element 250 sends the base layer data to the transmitter for transmission); determining said at least a portion of said encoded second bit-stream to be transmitted over said network (fig.2, note the data from element 230 sends the enhancement layer to element 250 to the transmitter for transmission); and transmitting said determined portion of said encoded second bit-stream over said network in accordance with data elements (fig.2, note the data from element 230 sends the enhancement layer to element 250 to the transmitter for transmission).

Han does not disclose hint tracks or the plurality of hint tracks. However, Proehl teaches the implementation of hint tracks for facilitating the transmission of bitstream data (col.2, ln.25-31, Proehl discloses the use of multiple hint tracks). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Han and Proehl, as a whole, for facilitating the transport and quick viewing of MPEG-4 video image data (Proehl col.1, ln.33-36).

Regarding claims 3 and 9, Han discloses wherein said step of determining a portion of said encoded second bit-stream to be transmitted is made in accordance with at least one of a prevailing network condition, a network bandwidth variation, a network complexity constraint and a user preference (col.14, ln.66 to col.15, ln.5, note

the disclosure of scalability is dependent on the network constraints for ensuring the available bandwidth to transmit data according to the network congestion, and scalability provides the opportunity to transmit data depending on network congestion or bandwidth availability).

Regarding claims 4 and 10, Han discloses the transmission of base and enhancement layers (col.5, ln.16-20, fig.2, note element 250 sends the base layer data to the transmitter for transmission; and in fig.2, note the data from element 230 sends the enhancement layer to element 250 to the transmitter for transmission). Han does not disclose wherein said step (g) of transmitting said determined portion of said encoded second bit-stream further comprises the steps of: identifying those enhancement layer hint tracks from among said plurality of enhancement layer hint tracks required to satisfy said determined portion to be transmitted; and establishing a separate end-to-end network connection for each of said identified enhancement layer hint tracks. However, Proehl teaches using hint tracks so as to establish identification of data required to satisfy said determined portion to be transmitted and establish separate end-to-end network connection for each hint tracks (col.2, ln.25-45; Proehl teaches the use of RTP protocol hint tracks to establish separate end-to-end network connection for each of the hint tracks of the multiple hint tracks). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Han and Proehl, as a whole, for facilitating the transport and quick viewing of MPEG-4 video image data (Proehl col.1, ln.33-36).

Regarding claims 5 and 11, Han does not disclose wherein said established end-to-end network connection is an RTP connection. However, Proehl teaches wherein the established end-to-end network connection is an RTP connection (col.2, ln.31-38). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Han and Proehl, as a whole, for facilitating the transport and quick viewing of MPEG-4 video image data (Proehl col.1, ln.33-36).

Regarding claims 6 and 12, Han discloses the enhancement layer (col.4, ln.45, fig.2, element 230 encodes the enhancement layer) and the transmission of enhancement layers (fig.2, note the data from element 230 and 245 send the plural enhancement layers to element 250 to the transmitter for transmission). Han does not disclose wherein said step generating a plurality hint tracks to facilitate the transmission of at least a portion of said second bit-stream over said network further comprises maintaining said enhancement layer for local playback. However, Proehl teaches the implementation of hint tracks for facilitating the transmission of bitstream data (col.2, ln.25-31, Proehl discloses the use of multiple hint tracks). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Han and Proehl, as a whole, for facilitating the transport and quick viewing of MPEG-4 video image data (Proehl col.1, ln.33-36).

Regarding claim 13, Han teaches using an MPEG-4 encoder (col.1, ln.32-37).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341.

The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen Wong
Primary Examiner
Art Unit 2621

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4/2/09